KENTON

MIDI Retrofit Fitting Instructions for Sequential Circuits Prophet 5 (Rev. 3.x)

Kit contents:

- 1x PCB (MIDI board)
- Large pack of fitting components (leads etc.)
- Small pack of fitting components (screws, MIDI sockets, etc.)
- Set of fitting instructions (this document)
- Set of user instructions

Attention – GET THE INSTALLATION RIGHT!

A high level of technical expertise is required to fit this kit successfully. Do not attempt to fit it unless you are confident that you have all of the necessary skills.

It is extremely important that you install this kit correctly. Use the drawings, and call us on the telephone number below if you have any doubt. The MIDI board and/or the synth board can be damaged by incorrect installation; and both fail in characteristic ways. Repairs are expensive and avoidable. Observe static handling precautions at all times.

You know that the synth worked before you started. We always supply boards which have been tested thoroughly, and we know to be working. If you return a board to us as 'not working' , we can usually tell what has happened to it!

Please take extreme care not to alter any trimmers that might be situated near the mounting position of the MIDI board or wiring. Any changes are likely to result in the synth performing unpredictably.

This kit should be installed as soon as possible after you receive it, and in any case not more than 3 months after purchase. Kenton MIDI kits are in a constant state of development, and installation support can only be provided for recent versions.

Do not lose these fitting instructions – exact replacements may not be available!

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1. Test the Prophet 5 before starting to ensure that everything works correctly.

2. Switch off the power and **disconnect the Prophet 5 from the mains supply**.

3. Remove the cover screws (4 on the rear, 11 round the base and 2 under the keyboard).
Unplug the 20-way connector (P302), the 2-way connector (P402), and the 9-way connector (P305) if fitted.
Separate the base from the top section.

4. Mark out and drill holes in the base for the 3 MIDI sockets and the push button. (*Fig. 2*)

5. Fit the 3 MIDI sockets, with the pins lowermost, using the supplied 8mm screws and KEPS nuts with attached washers. Fit the 'IN / OUT / THRU' label next to the sockets.

6. Mark out and drill the holes for the MIDI board. (*Fig. 1*)

7. Fit the MIDI board using the supplied 16mm screws, nuts and washers. (*Fig. 1*)

8. Connect the multicoloured ribbon cable to the MIDI sockets and push button. (*Fig. 3*)

9. Fit the push button and connect the black wire to the power supply. (*Fig. 10*)
Connect the 10-way ribbon cable to the MIDI board. (*Fig. 5*)

10. Connect the red, black, orange & blue wires to the power supply. (*Fig. 10*)

11. Connect the violet wire to the release jack socket. (*Fig. 4* & *Fig. 7a*)

12. Connect the pink wire to the filter jack socket. (*Fig. 4* & *Fig. 7b*)

13. Connect the pink/black wire to the amplifier jack socket. (*Fig. 4* & *Fig. 7c*)
Connect the 8-way connector to the MIDI board. (*Fig. 5*)

14. Take the upper part of the Prophet 5 and remove PCB 3 & PCB 4. **Do not unplug the ribbon cable linking the two boards.**

15. Locate the ribbon cable connecting the keyboard to PCB 2. Remove and discard this cable.

16. Plug the shorter (460mm) MIDI ribbon cable into the vacant socket on the keyboard.
Plug the longer (610mm) MIDI ribbon cable into the vacant socket on PCB 2, observing the stripe orientation (*Fig. 11*)

17. Connect the grey/blue and grey/black wires to the solder side of U212. (*Fig. 8* & *Fig. 11*)

18. ~~For Prophet 5 rev. 3.0 / 3.1:~~
~~Connect the yellow, green, brown & blue wires to PCB 3 (*Fig. 9a*)~~

    For Prophet 5 rev. 3.2 / 3.3:
    Connect the yellow & green wires to PCB 3 (*Fig. 9b*)

19. Connect the 5x 200K resistors to PCB 4 and the diode, and then to the orange/black wires. (*Fig. 6*)
A piece of orange/black wire is included for this purpose, as is some heatshrink sleeve for insulation.

20. Check through all wiring to ensure that the instructions have been followed correctly.

21. Replace PCB 3 & PCB 4.

22. Connect the 2-way connector, the 8-way connector, & the 2x MIDI ribbon cables to the MIDI board in the base of the Prophet 5. (*Fig. 5*)
Reconnect the 20-way connector, the 2-way connector, & the 9-way connector, if fitted.

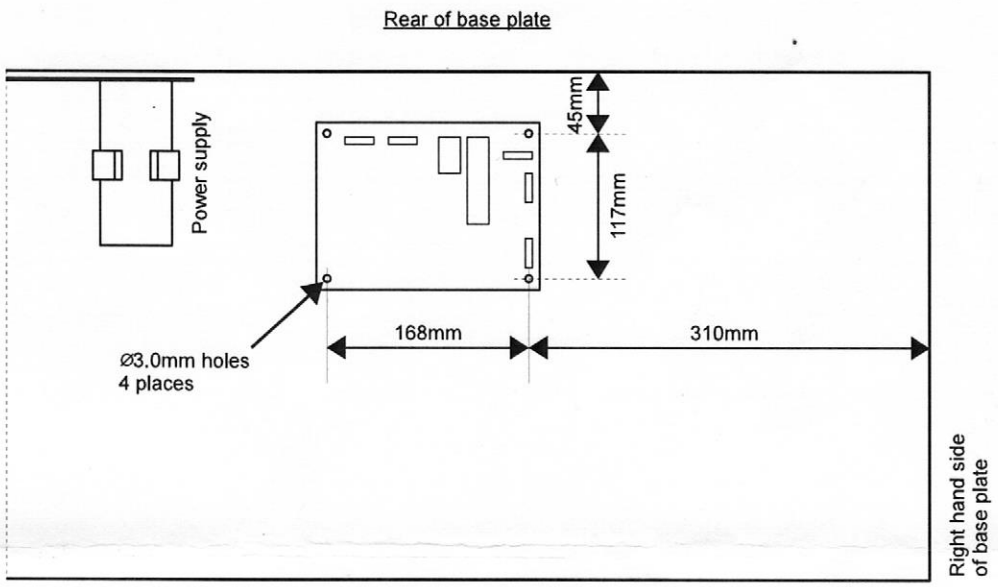
23. Rest the upper part of the Prophet 5 on the base, ensuring that no cables are trapped or fouling anything.
Switch on the Prophet 5 and test.

24. Adjust the pitch bend range trimmer (*Fig. 5*), so that the MIDI pitch bend range is the same as that given by the Prophet 5's own pitch bend wheel. (or a fifth is recommended)

25. Replace all 17 cover screws and final test.

Fig. 1 - MIDI board mounting details

Drawings not to scale.



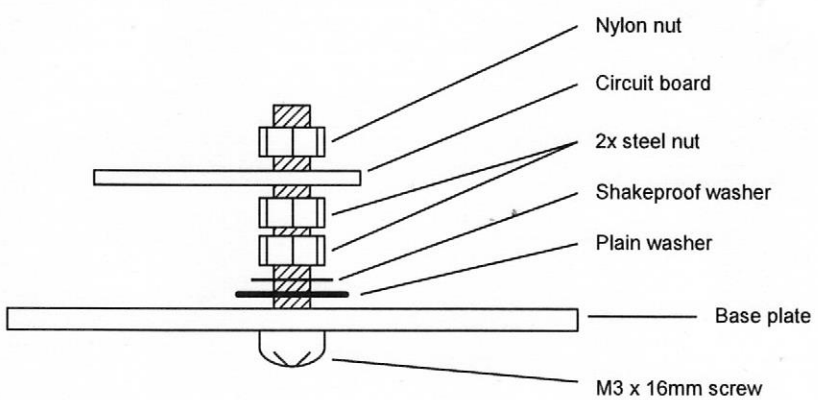


Fig. 2 - Rear panel drilling details

Drawings not to scale.

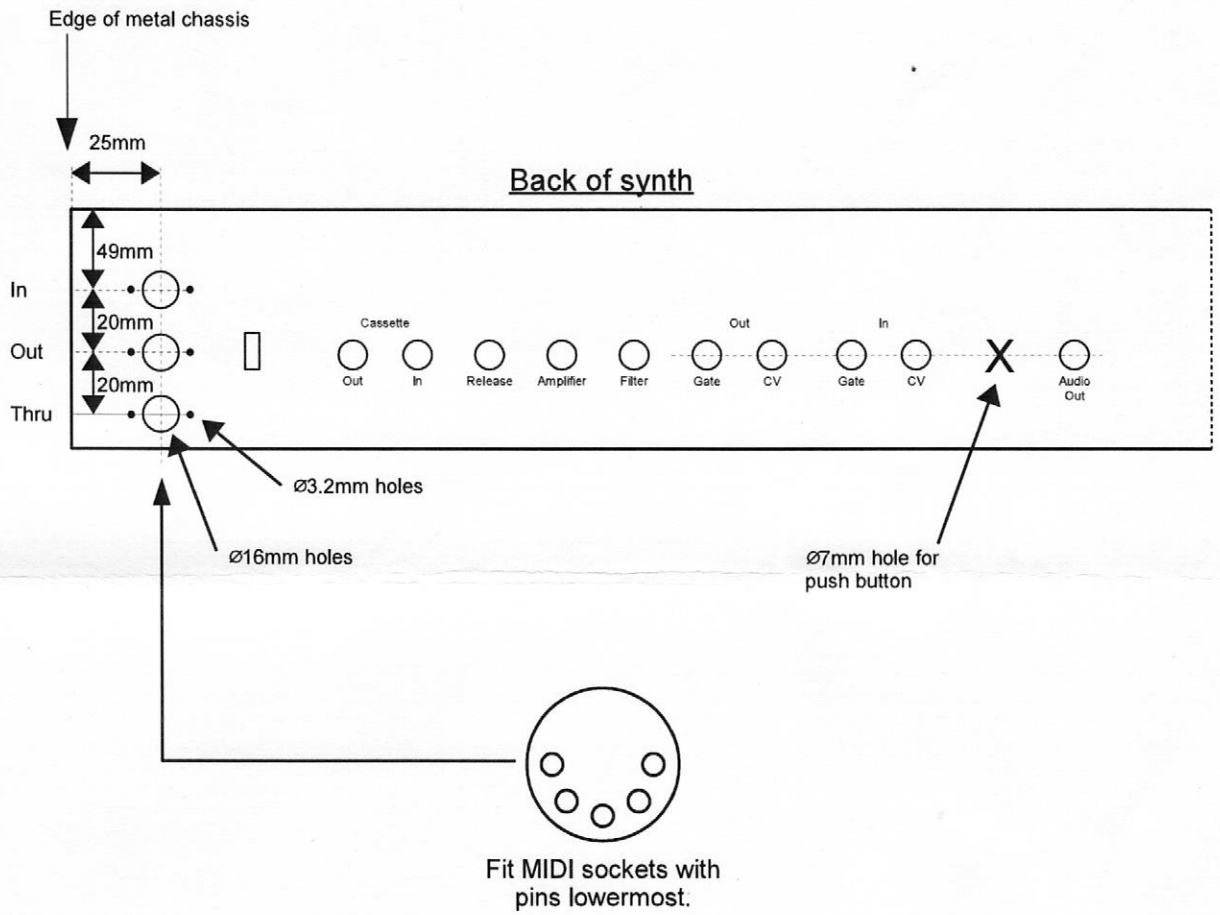
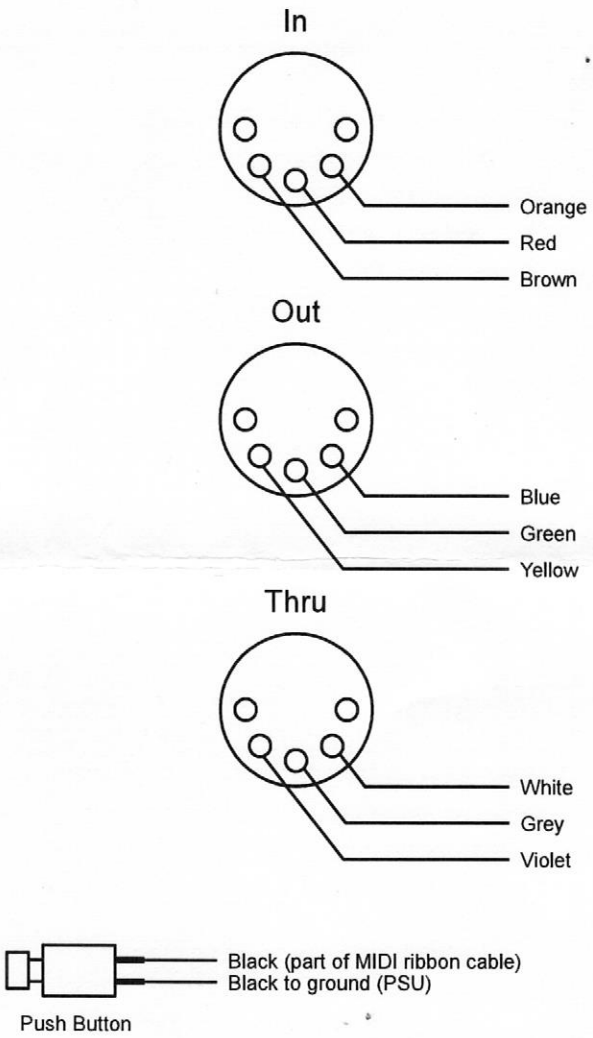


Fig. 3 - MIDI socket / push button wiring

Rear view of MIDI sockets (from inside Prophet 5)



Jack sockets as seen from inside of rear panel.

Fig. 4A – Release jack

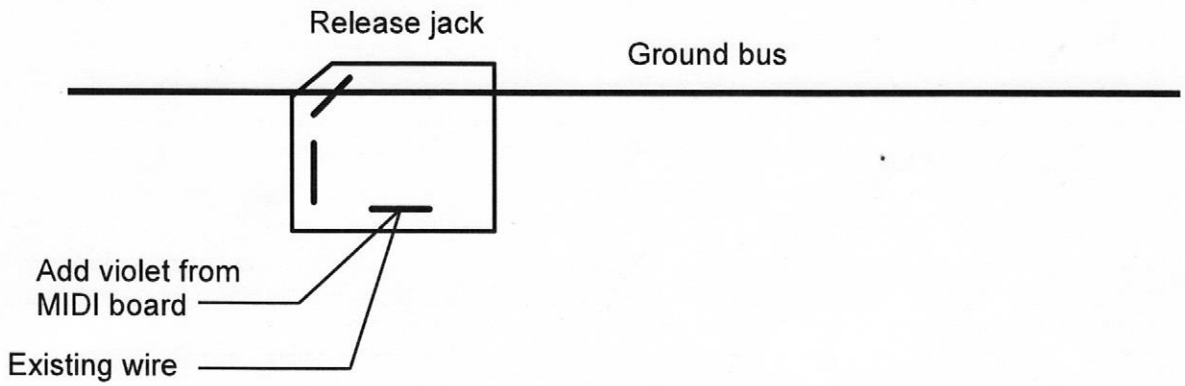


Fig. 4B – Filter / amplifier jacks, existing circuit

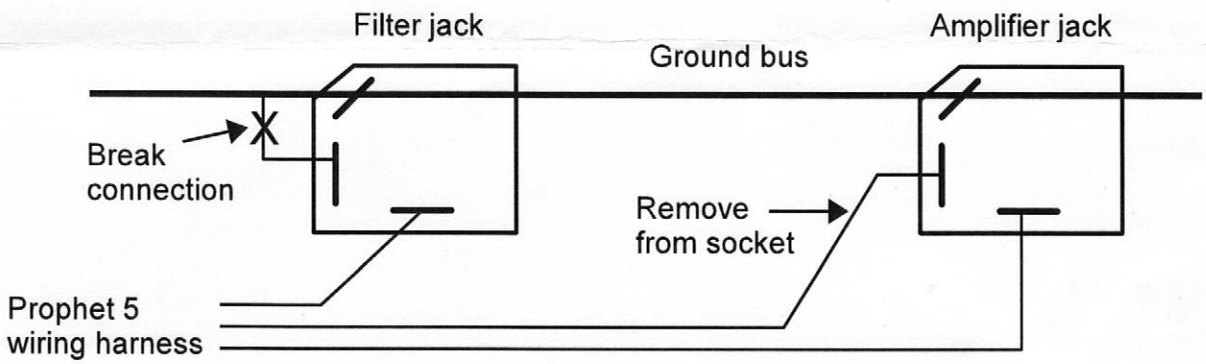


Fig. 4C – Filter / amplifier jacks, new circuit

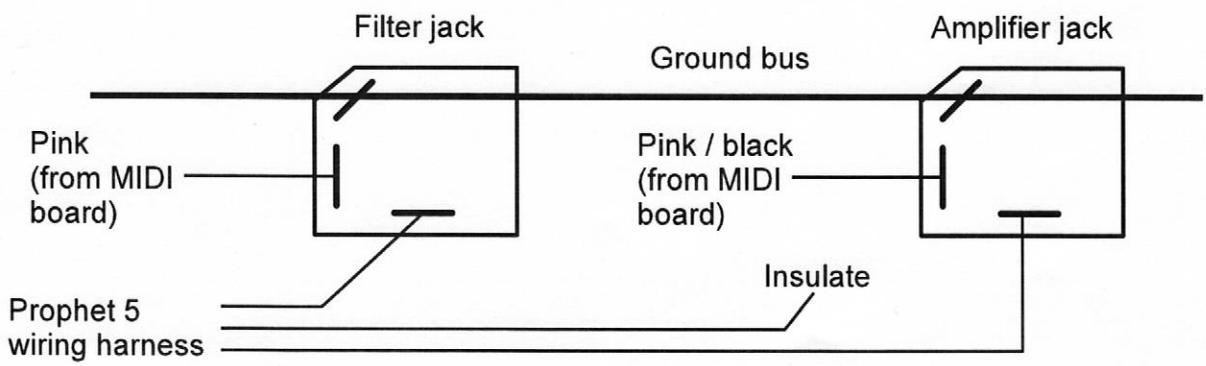


Fig. 5 - MIDI board connections

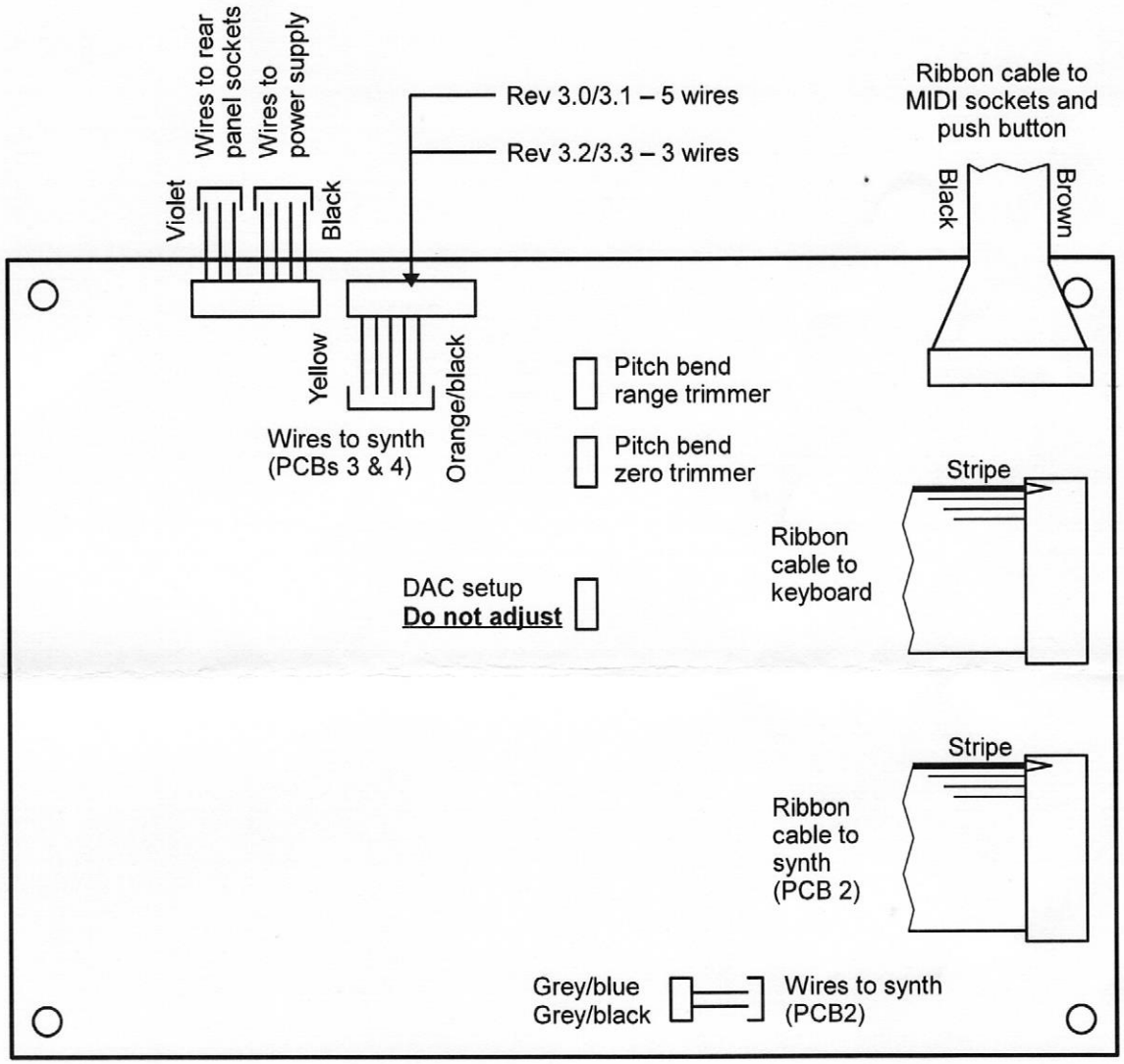
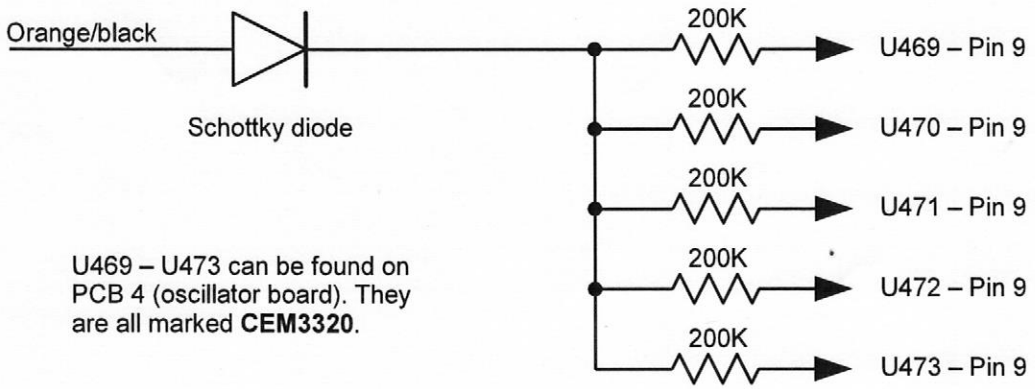
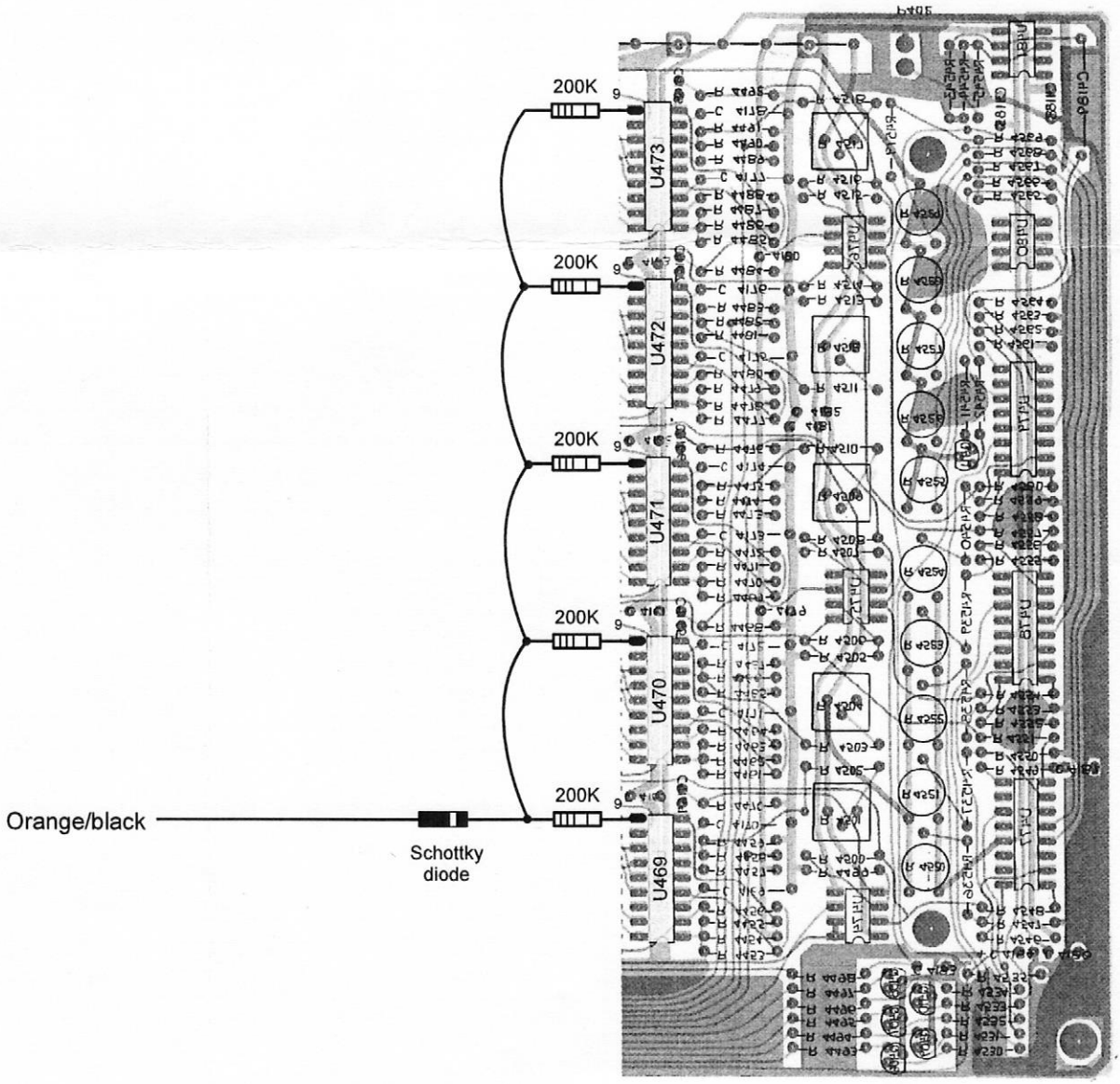


Fig. 6 – Connections for resonance



U469 – U473 can be found on PCB 4 (oscillator board). They are all marked **CEM3320**.



Solder side of PCB 4

Fig. 7A – Release jack

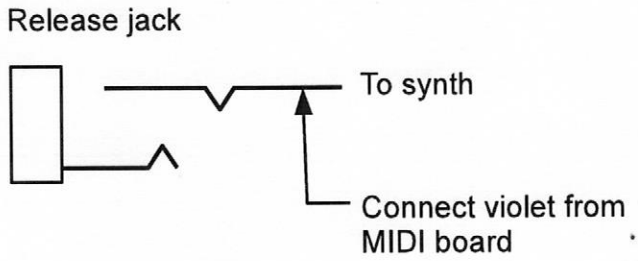


Fig. 4B – Filter jack

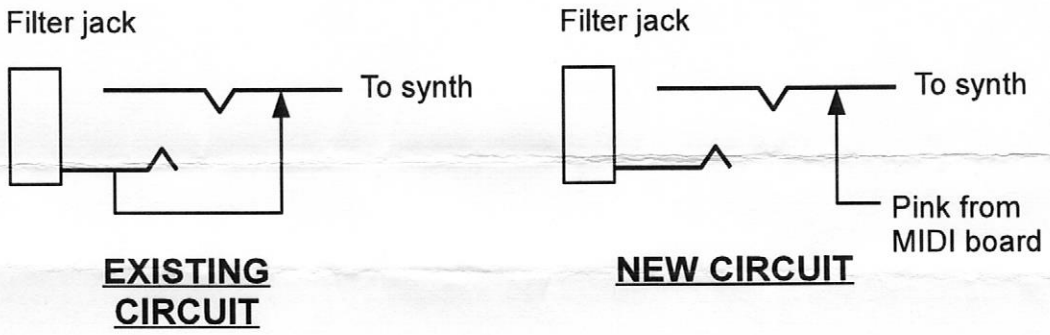


Fig. 4C – Amplifier jack

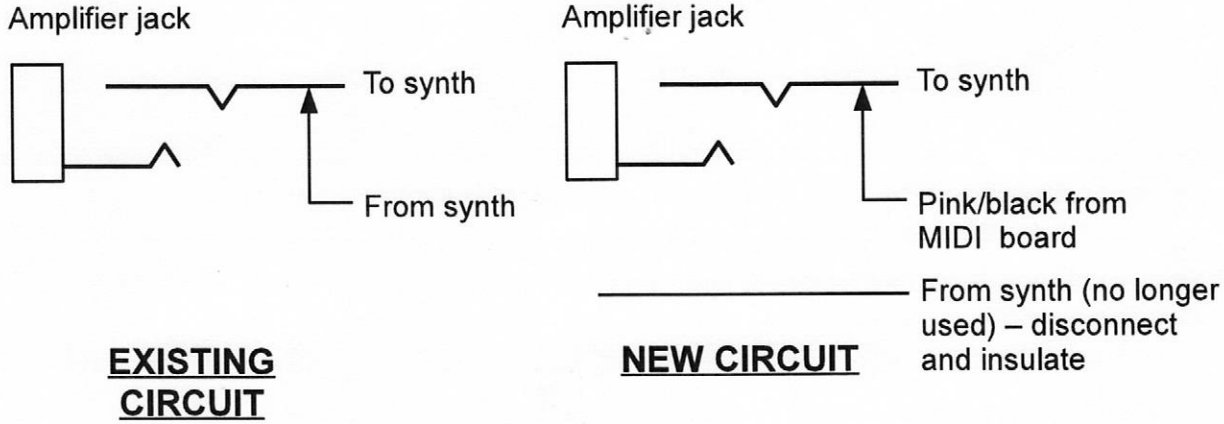


Fig. 8 – Solder side of PCB 2 (left-hand pot. board)

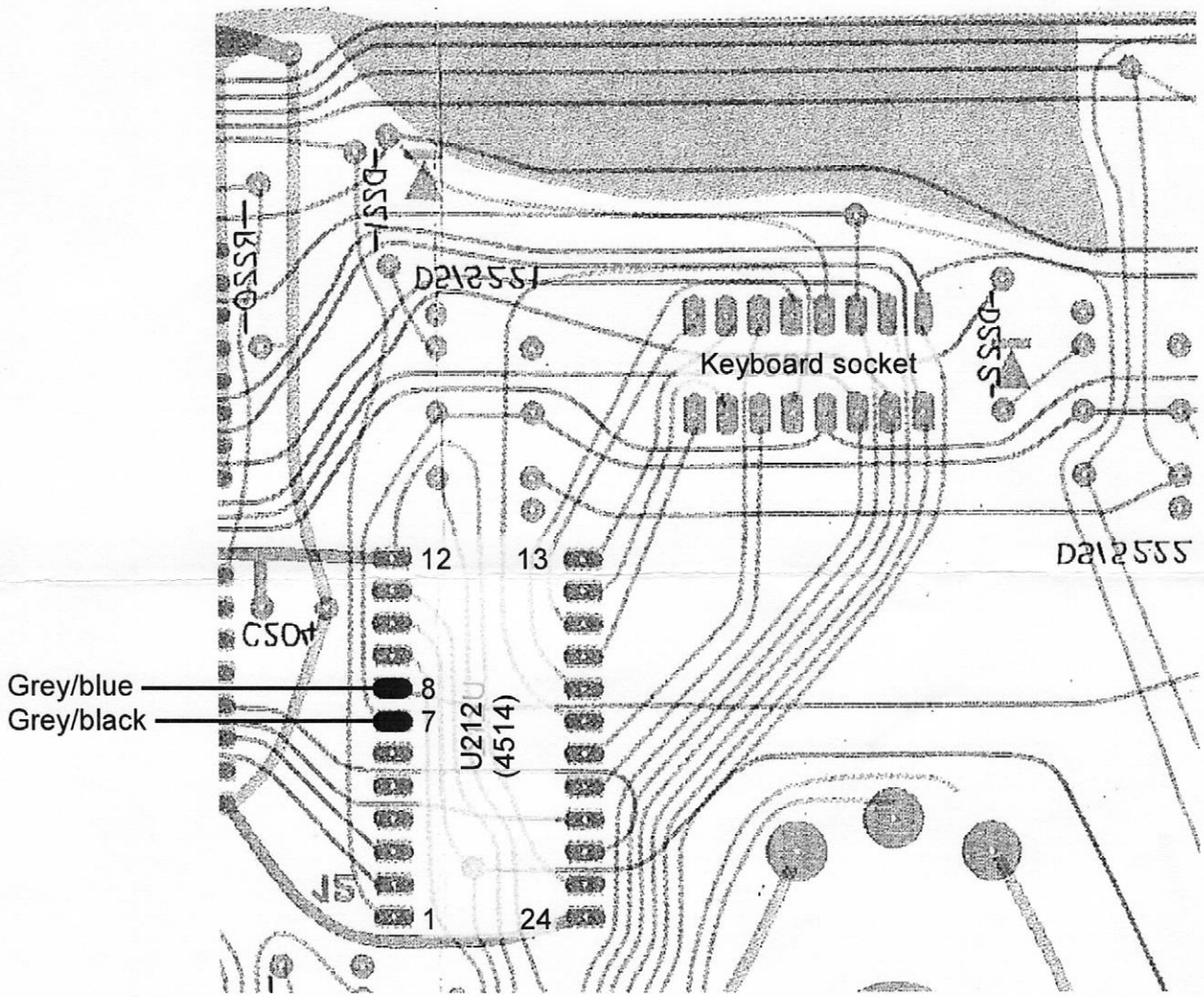
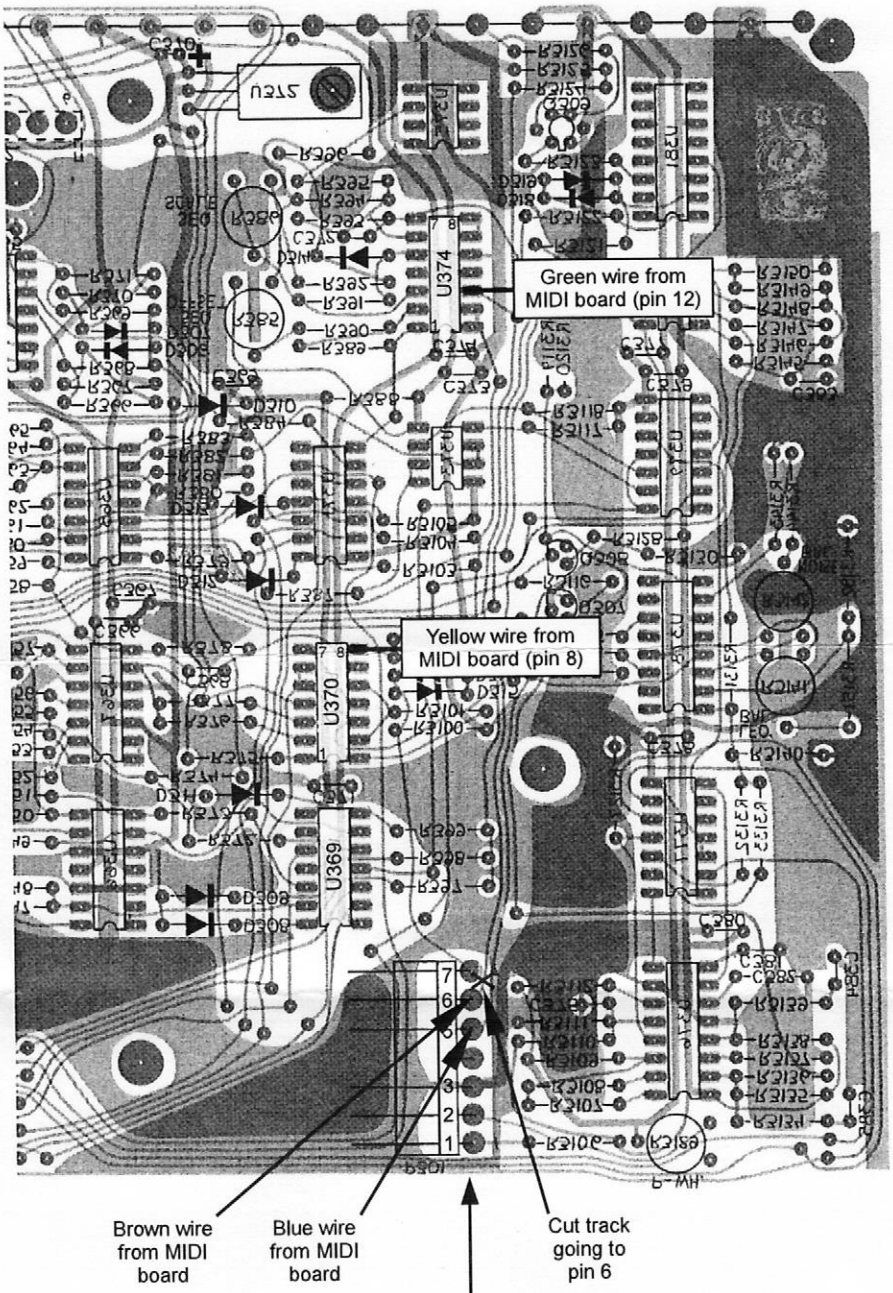


Fig. 9a – for Prophet 5 rev. 3.0 & 3.1 only

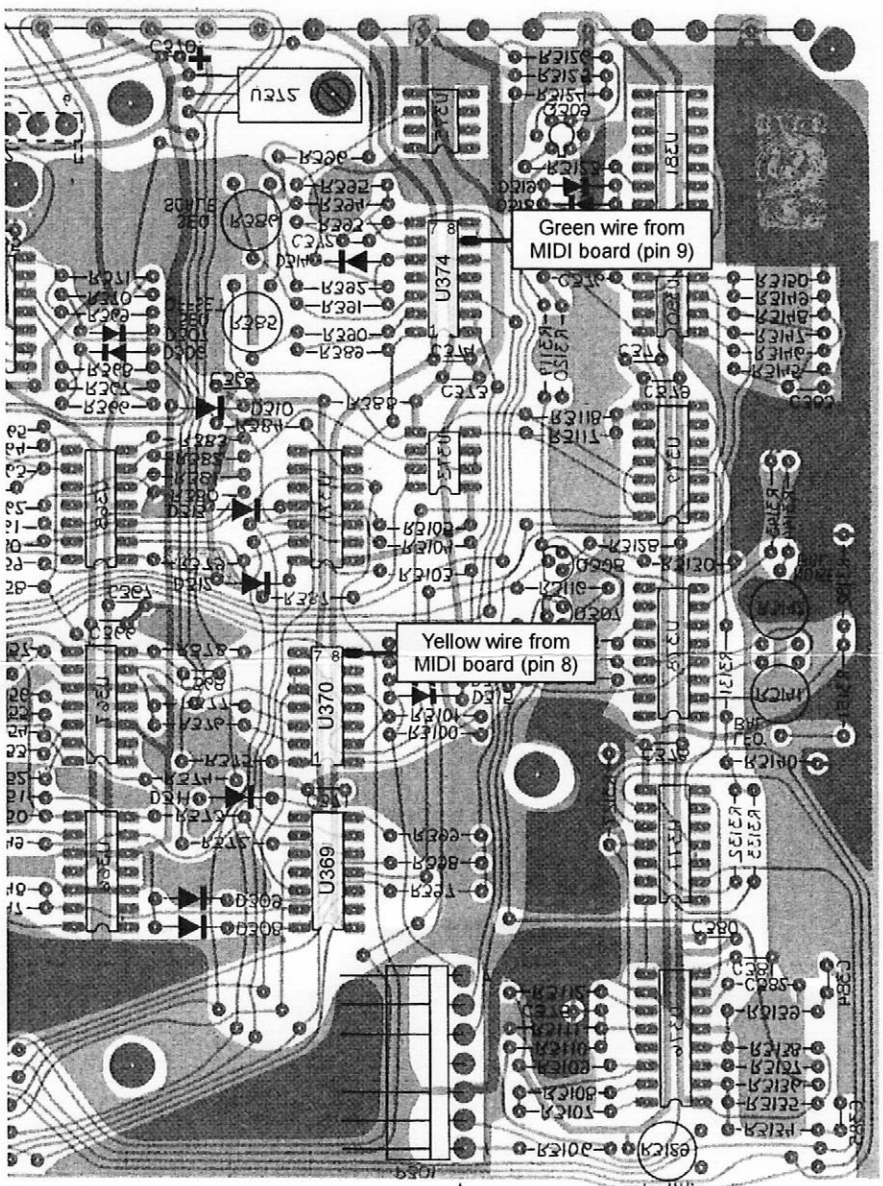
Solder side of PCB 3 (the one with the Z80)



Underneath connector for pitch / mod wheels

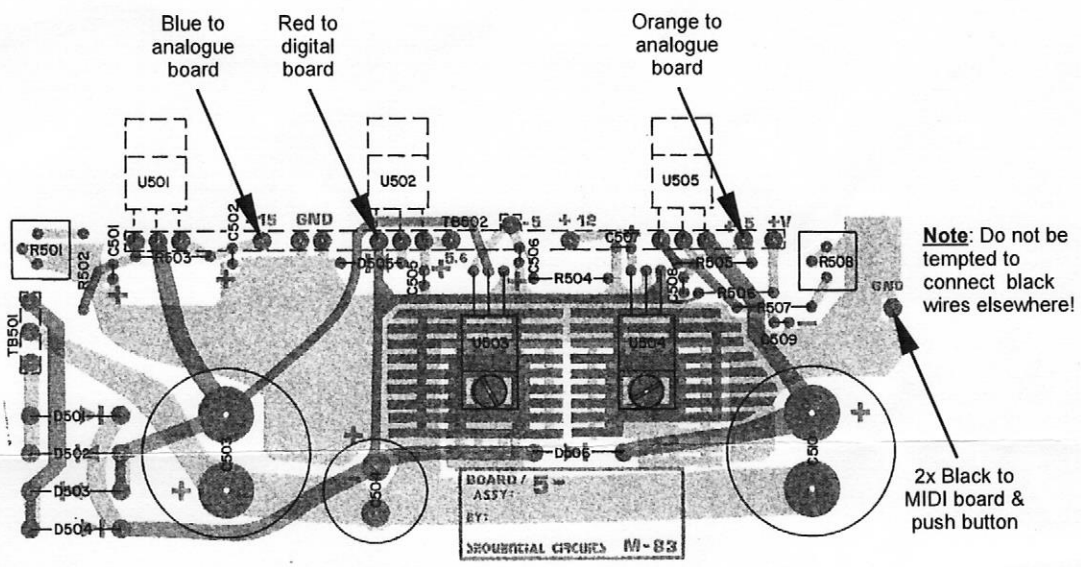
Fig. 9b – for Prophet 5 rev. 3.2 & 3.3 only

Solder side of PCB 3 (the one with the Z80)



Underneath connector for pitch / mod wheels

Fig. 10 – Power supply board connections



Power Supply board connections

Fig. 11 – Keyboard connections

